

School Sanitation and Hygiene Education: A Focus on Rural Community Basic Schools in Ghana.

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Abstract

This study was conducted to examine the impact of School Sanitation and Hygiene Education (SSHE) on Basic schools pupils in the Akontombra district in the Sefwi Wiawso Municipality in Western Region of Ghana. It was in an attempt to find out how pupils practise sanitation. One hundred respondents made up of 50 boys and 50 girls drawn from the target population were sampled randomly and purposively. Data was gathered mainly with the aid of interviews and questionnaires. The study revealed that improving hygiene and sanitation of school children is a significant factor for achieving good educational outcomes. It was also realized in the ten schools where the study was conducted that school sanitation and hygiene education did not have any significant impact on the pupils in the area. Thus schools and stakeholders will have to emphasise the implementation of SSHE. It was recommended among others that the government, in collaboration with Ghana Education Service (GES) should organise workshops for school health coordinators and empower them with skills that will enable them handle issues related to hygiene and sanitation with confidence.

Keywords: improving sanitation, hygiene, educational outcomes, practice, health.

1. Introduction

In the view of the World Health Organisation (WHO) (2000), sanitation generally refers to the provision of facilities and services for the safe disposal of human urine and faeces; and inadequate provision of these facilities is a major cause of diseases worldwide. It has been realised that improving sanitation is known to have a significant impact on health both in households and across communities (WHO 2000). The word sanitation also refers to the maintenance of hygiene conditions, through services such as garbage collection and waste water disposal.

UNICEF and IRC (1988) as well as Coppens (2005) consider School Sanitation and Hygiene Education (SSHE) as the combination of hardware and software components that are necessary to produce a healthy school environment to develop or support safe hygiene behaviour. They are of the view that hardware components include supply of drinking water and facilities for hand washing and safe disposal of excreta and solid waste in and around the school compound. The software components are the activities that promote conditions at schools and practices of school staff and children that help to prevent water and sanitation related diseases and parasites.

Snel (2004) and Water Aid Uganda (2013) indicate that health influences learning and education influences health. This is because poor sanitation causes diarrhoea, which kills 1.5 million children each year. However, smart investments in sanitation can reduce disease, increase family incomes, keep girls and boys in school, help preserve the environment, and enhance human dignity. Increasing evidence also shows that school sanitation and hygiene education programmes offer high cost benefit (DANIDA, 2007). Unfortunately, the promises of school health and hygiene education programmes have not always been fulfilled by either the government or stakeholders in education especially in the rural communities. Many school environments in most rural communities are not safe for children due to neglect of the operation and maintenance of health facilities. It is believed that there has been a lack of hygiene education for the students. These schools often suffer from nonexistent or insufficient water supply, sanitation and hand washing facilities, dirty and unsafe water supply; toilets or latrines that are not adapted to the needs of children particularly girls; non existence and hygiene education, unhealthy and dirty classrooms and school compounds among others. WHO, (2000) estimates that 88% of diarrhoeal disease is caused by unsafe water supply and inadequate sanitation and hygiene. Many schools serve communities that have a high prevalence of diseases related to inadequate water supply, sanitation and hygiene, and where child malnutrition and other underlying health problems are common.

Under these conditions, schools become unsafe places where diseases are transmitted (WHO, 1997). Thus, children's ability to learn may be affected by inadequate water, sanitation and hygiene conditions (Cairncross &

Valdmanis, 2006). This can contribute to poor health which can affect children's ability to learn and may therefore influence their educational achievements and prospects in life (Clarke & King, 2004; Faheem & Yasir, 2007; ICF Macro 2010). A study by Nokes, & Bundy, (1992) for example, shows that children with worm infestations have lower marks in school than non-infected children. Basically this means that children with heavy worm infestations begin at a disadvantage and have a slower start in the learning process; these children have only a few years of opportunity to benefit from a formal education. Issues of sanitation and hygiene are of critical concern to every nation as a whole and to schools as far as education are concerned. Visits made by researchers to some public schools in Sefwi Akontombra district in Western Region in Ghana revealed the lack of proper health and hygiene facilities. This situation and its inherent poor hygiene practices which are not different from what pertains in some rural schools in many developing nations, makes the school environment no longer a safe place for school children (WHO,2009).

2. The Problem

Many basic schools in deprived communities in Ghana are challenged with issues of poor sanitation and hygiene because many of them are without toilet and waste disposal facilities. This is a true reflection of what pertains in the communities where people defecate openly thereby polluting the environment; thus, creating unsafe and disease-prone locale.

Hardly will one come across a dustbin let alone a hand washing facility in these basic schools. Few schools with toilet facilities cannot also maintain them due to their deplorable state, owing to over usage by the members of the communities. Sefwi Akontombra district is one of the deprived districts in the Western Region, which has poor sanitation and hygiene issues. Many schools in this district are without toilet facilities. For instance in Akontombra, the district capital, there were only two(2) toilets and two(2) urinal facilities serving four(4) cluster of schools with a population of over two hundred (200) pupils. And because teachers also use the same facilities, one is often reserved for them leaving only one to be shared by the over two hundred (200) pupils. These poor sanitation and hygiene conditions caught the attention of the researchers during school visits they conducted in the district. Thus, they decided to find out how pupils dispose of faeces and solid waste and its impact on pupils' academic achievement in schools in this deprived district. The following research questions were formulated to guide this research:

1. How do pupils hygienically dispose faeces and solid waste in the schools?
2. How does sanitation improve academic achievement in schools?

It is believed that findings from the study aside adding to existing knowledge would also help school communities in the deprived communities to increase their knowledge in school hygiene and sanitation. This would provide a platform for stakeholders to educate other communities where the study area did not cover, and also make provision of sanitation and hygiene facilities in the schools in these communities and other areas as well.

3. History of School Health Education Programme (SHEP) in Ghana

In 1992 the Government of Ghana directed the Ministries of Education and Health to introduce the School Health Education Programme (SHEP) in basic schools to complement and supplement the academic component of formal education and child survival. This is a similar programme to what the World Health Organization (WHO) defines as school health programme which is seen as a combination of services ensuring the physical, mental and social well-being of learners so as to maximize their learning capabilities.

SHEP also seeks to equip school children with the necessary health skills that will enable them take control of their own well being, have maximum pupil-teacher contact hours and use available human and material resources to ensure improved health status of school children. This programme also advances the well being of learners, by positively influencing their health, knowledge, attitudes, beliefs and values. In addition, SHEP aims at ensuring the provision of comprehensive health and nutrition education and its related support services in schools. It is also to equip children with basic life skills for healthy living, which will lead to improvements in child survival and educational outcomes, including school enrolment, retention and academic performance. SHEP is also envisioned to create well informed health conscious school populations who have full potentials to act as change agents in their homes and communities and to contribute effectively and efficiently to national development (WHO, 2009).

The mission of SHEP is to facilitate the effective mobilisation and deployment of available human, material and financial resources to equip school children with basic life skills for healthy living through skill – based health education, promoting good health and preventing diseases among the school population (Snel, 2003; DANIDA, 2007).

4. The Importance of School Sanitation and Hygiene Education (SSHE) in School

Del Rosso & Marek (1996) comment that healthy children are more likely to attend school regularly and they are also more likely to perform better in their academic work. They explain that children who are taught in schools to acquire essential health related knowledge and skills are not only less likely to engage in health-compromising behaviour as adolescents, but more likely to carry the knowledge and skills into adulthood and lead healthy lifestyles.

According to WHO (2009), children pass on health-related knowledge and skills acquired from schools to parents and other members of the household. Thus, school - based health education programmes benefit not only students but family members and the community at large. A school child educated to the benefits of sanitation and good hygiene behaviour is a conduit for ferrying those messages far beyond the school walls, bringing lasting improvement not only to his or her health and wellbeing, but also to that of the family and the wider community, Snel IRC (2003). Investing in school sanitation and hygiene education and the importance of School Health and Hygiene Education therefore cannot be over- emphasized.

Sanitation and hygiene are therefore fundamental to good health and dignity, and improving sanitation and hygiene practices should not be underestimated. SSHE is an integral package of school health education systems on water, sanitation and hygiene and needs to be recognised and endorsed by all stakeholders. Likewise, a joint strategy session at the World Education Forum held in Dakar in 2000 made a strong case that provision of effective school health services is an important strategy for achieving Education for All. Provision of school health services not only responds to a need, but also increases the efficacy of other investments in child development, ensures better educational outcomes, achieves greater social equity and is a highly cost effective strategy (Integrated School Health Policy 2012).

Globally, about 1.1 billion people are currently without access to improved water supply and about 2.4 billion do not benefit from any form of improved sanitation service (WHO, 2000). Majority of these people live in Asia and Africa. In a study conducted by W.H.O in Africa, it came to light that two out of five people lack improved water supply. Burgers (2000), opines that the main component of sanitation and hygiene is the provision of safe water and sanitation facilities in schools. To him, this is the first step towards a healthy physical learning environment, benefiting both learning and health. However Burges is of the view that, the mere provision of these facilities does not necessarily make them sustainable or produce the desired impact. It is the use of toilet facilities and its related appropriate hygiene behaviour of people that provides health benefits. In schools, hygiene education aims to promote these practices that will help; to prevent water and sanitation-related diseases as well as encouraging healthy behaviour in the future generation of adults.

The success of a school hygiene programme is therefore not determined only by the number of toilet facilities constructed and the number of hand pumps installed or water connections built but by what learners know about sanitation and hygiene practices and how they put this knowledge into practice (WHO, 1999).

5. Methodology

The research adopted a survey design. According to Bryman and Bell (2007), this research design allows researchers to easily describe and provide an understanding of a phenomenon using simple descriptive statistics. The design was found suitable because it permitted the researchers to obtain data from the respondents at a relatively low cost. The population of the study comprised all basic school pupils in the Sefwi Akontombra District. The Sefwi Akontombra district is one of the deprived districts in the Sefwi Wiawso Municipality.

The sample for the study comprises 100 respondents made up of 50 boys and 50 girls, who were randomly selected from ten basic schools in the district. The schools were purposively selected because they were those which had sanitation challenges.

The mixed method approach was used in collecting data for the study. The main instruments used in gathering data were questionnaire and semi-structured interview. Fifteen items made up of open and close ended types of questions were used to collect data on how pupils practise sanitation in their schools. The questionnaire was designed based on the objectives of the study. According to Walen and Fraenkel (2001), cited in Incoom (2012), questionnaires are designed to collect data for decision in research. To them it is considered as the best for researchers who wish to acquire original data for describing a large population. Semi-structured interview was used to throw more light on issues that arose from the questionnaire. In order to obtain validity for the study, the instrument for data collection was pre-tested in selected schools located in the rural areas in the Winneba Municipality. The pre-testing was to reveal any ambiguity that may be identified in administering the questionnaire. The questionnaire was further validated by colleagues and expert science lecturers to determine its content and face validity. Cronbach alpha test was applied to establish the internal consistency of the questionnaire at 0.78. Thus, the instrument was considered to be highly reliable (Cohen, Mannion & Morrision, 2007).

The questionnaires were administered to the respondents in the ten basic schools sampled by the researchers. With the help of the school-based health coordinators, the questionnaires were distributed to the pupils who were selected from each of the schools. The selected pupils in each school were put into one group in a classroom and were encouraged to complete the questionnaire after permission had been sought from the head teachers. The selected pupils were from class six and all levels of Junior high schools. One hundred questionnaires were distributed but due to errors in some, 94 of them indicating 86.5% return rate were found acceptable for the study. Eight pupils from schools with no toilet facilities and two from schools with only one toilet facility were selected for the semi-structured interview.

In order to examine the views of the respondents on the topic, the field data were checked for consistency and organised in tables according to the research questions. Descriptive statistics using frequencies and simple percentages were used to describe the data on the basis of the reaction of the respondents to the questionnaires. The Statistical Package for Social Science (SPSS) for windows (version 16.0) was used for data analysis. The results were subsequently discussed and supported with related literature.

6. Results and Discussion

Data in the study is presented based on the research questions used in the study. Frequency and percentage tables were used to illustrate the results.

Research Question 1: How do pupils hygienically dispose of faeces and solid waste in the school?

The table below shows the response provided by respondents when they were asked to indicate whether they had toilet facility in the schools or not.

Table 1: Toilet available in the school

Response	Frequency	Percent
Yes	31	33
No	63	67
Total	94	100.0

The response from table 1 revealed that most of the schools in the district did not have toilet facility. While 33% (31) of the respondents indicated they had toilet facility in their schools, as many as 67% (63) indicated, they had none. Though this result was obtained from a deprived district in Ghana, it is not different from what happens in most developing countries in Sub-Sahara Africa and even some Asian countries. This is consistent with reports from WHO (2009), which indicates that globally, about 2.4 billion people, most of whom are Africans and Asians do not benefit from any form of improved sanitation service.

Table 2 indicates the type of toilet facilities which are available in the schools. From table 2 below, out of those who responded yes, 65% (20) which constitute the majority, responded that KVIP is the type of toilet they have on their school compound. 19% (6) of the respondents state they have pit latrine where as 16% (5) of the respondents mentioned improved pit latrine as the only toilet facility available in their schools.

Table 2: Type of Toilet Available in the Schools

Types of Toilet Facilities	Frequency	Percent
Pit latrine	6	19
Improved pit	5	16
KVIP	20	65
Total	31	100.0

Table 3 shows whether toilet facilities are gender friendliness.

Table 3: Gender friendliness of toilet

Response	Frequency	Percent
Yes	12	39
No	19	61
Total	31	100.0

From table 3, it is observed that 39 % (12) of the pupils who had toilets on school compound responded that these facilities were gender friendly and 61.0 % (19) reported their toilet facilities in their schools were not gender friendly. During an interview conducted with pupils, one female commented:

‘We have only one toilet and both the female and male visit the same toilet’

Another male pupil also said:

‘When the girls get to the toilet they spend a lot of time so, I am compelled to find somewhere else to ease myself. Also, some of the girls leave blood stains in the toilet. This normally prevents us from using the toilet facility’.

The provision of inadequate toilet facilities in schools leads to a situation where both male and females are compelled to use one toilet facility. This does not promote gender equity, because this may create inconvenience for both sexes as the interview discussion above indicate. Snel (2004), UNICEF/IRC (2005), WHO (2009), and Water Aid Uganda (2013) reiterate that lack of appropriate private and sanitary facilities has a greater impact on girls than boys and when proper toilet facilities are provided separately for girls, they feel protected and respected thus, they are more likely to enroll and stay enrolled. Table 4 discusses how toilet facilities in schools are kept.

Table 4: Neatness of Toilet

Response	Frequency	Percent
Yes	10	25.8
No	21	74.2
Total	31	100.0

Table 4, revealed 25.8 % (10) respondents indicated toilet facility on their school compound was always kept tidy and neat however as many as 74.2% (21) said their toilet facilities were not kept neat at all . During an interview with pupils on how they kept their toilet neat and clean, a pupil commented:

‘In our school we use duty roster to clean the toilet and this is done on sectional (group) bases. Each section (group) use a day in a week to clean where all the group members get involved. This is how we clean our toilet’

A pupil in a school where they did not use a duty roster in cleaning their toilet said:

‘Offenders such as those who disturb in class or come to school late or show gross disrespect to teachers are made to clean the toilet. Offenders sometimes do not clean the toilet well because they see it as a punishment’.

Another pupil also commented:

‘Where no one commits an offence, it becomes difficult for us to clean the toilet because others don’t keep it neat. Our teachers therefore decide on whom to clean the toilets. This can be only boys or only girls or both boys and girls. When this happens cleaning is done anyhow.’

To find out why majority of the pupils indicated their toilet facilities were not clean, one female pupil commented:

‘We have only one toilet facility and people who live near the school often come to use the place when school has closed. So when we come to school and the place is very dirty, we find it difficult to clean and so we go to the bush to ease ourselves’.

It can be noted from the discussions above that some schools have their toilet cleaned and even that, sometimes these facilities are not cleaned properly. Some schools also find it difficult to clean their toilet facilities due to over usage by community members thereby causing learners to ease themselves in the bush. This supports what WHO, (2009) states, that, unsanitary condition of toilet facilities prevailing in schools causes many learners to defecate in the open environment which leads to outbreak of diarrhoeal diseases. In agreement to the above, UNICEF/IRC (2005) also says that unhygienic environments lead to chronic diarrhoea in children. They are also of the view that safe disposal of faeces and proper management of water resources is key to environmental sustainability. Table 5 discusses whether there are urinals in schools or not.

Table 5: Availability of urinals in schools

Response	Frequency	Percent
Yes	5	13.2
No	33	86.8
Total	38	100.0

Responses obtained from table 5 show that 86.8 % (33) of respondents said there was no urinal in their schools. This suggests that both females and males may urinate in the open, while 13% (5) of the respondents responded they have urinal in their schools. This suggests that both females and males may visit the same place to urinate. Coppens (2005) reports, it is necessary that rubbish bins are placed in every classroom and around the school compound to facilitate the collection of rubbish before it is taken to the rubbish dump in order to help curb sanitation. Table 6 discusses the availability of rubbish bins in schools.

Table 6: Availability of Rubbish bins in the schools

Response	Frequency	Percent
Yes	5	27.32
No	33	73.68
Total	38	100.0

Table 6 shows that 73.68 % (33) of the respondents indicated that they have no rubbish bins in their schools, while only 27.32 (5) responded they had rubbish bins in their schools. It can be realized that since majority of the schools did not have any rubbish bins, it is likely that keeping sanitation will be a problem. In reference to what Coppens (2005) reports above, this situation was not the case in most schools as indicated by the responses obtained. Table 7 discusses how waste was disposed in the schools.

Table 7: Method of waste disposal in the schools

Method of waste disposal	Frequency	Percent
Throwing rubbish anywhere on the compound	1	3.6
Sending it to the nearest rubbish dump directly	27	96.4
Total	28	100.0

From the table 7, almost all respondents said they do not have rubbish bins in their schools. Twenty seven (27) of the pupils representing 96.4% responded that they dispose solid waste materials by sending them to the nearest rubbish dump directly while one (1) of the respondent mentioned he or she throw rubbish anywhere on the compound.

Research Question Two: How does sanitation improve academic achievement in schools?

In an interview with pupils on how sanitation impacts on academic achievement in school one Junior High School pupil commented:

“It is said that a sound mind in a sound body leads to great achievement in education, so when we keep our environment clean, we will be healthy and concentrate on our education and pass our examinations”

Another also said:

“If we keep our environment clean and dispose our rubbish well, it won’t create breeding and hiding places for mosquitoes and houseflies that cause malaria and other diseases. When we get malaria, diarrhoea and other diseases, it prevents us from coming to school which later affects our academic performance.”.

Yet another pupil also said:

“Sometimes when we come to school in the morning we see that the toilet is very dirty because the people who live near the school come to use it and do not tidy the place after use. When this happens those of us in the Junior High School (JHS) are always made to use the morning period to clean the place. This affects our first lessons and this makes us not to learn the subject which we must learn. This makes us lose a lot of teaching time and this can affect our BECE results because we do not finish what we are supposed to learn”.

Another also said:

“As for us we have only one toilet and one urinal, but because we are many when you go and somebody is using the place, we are forced to ease ourselves in the nearby bush. This is not good for us because sometimes by the time we come back our teacher has taught a lot of things because of the distance and finding a good place where no one will see you”.

A female pupil also commented:

“In our school both boys and girls use the same toilet and urinal, so when I am in my period, I do not come to school because I will not get a place to change my pad. In the end I lose the whole week’s lessons.”

From the interview discussion with pupils, it is glaring that sanitation and education go hand in hand, in that one affects the other if each is not well administered. This is consistent with views shared by Del Rosso & Marek (1996) that healthy children are more likely to attend school regularly and they are also more likely to perform better in their academic work. Also, Snel (2004), UNICEF/IRC (2005) and WHO (2009) reiterate that lack of appropriate private and sanitary facilities have a greater impact on girls than boys and when proper toilet facilities are provided separately for girls, they feel protected and respected thus, they are more likely to enroll and stay enrolled.

7. Conclusions and Recommendations

This study was conducted to examine the impact of school sanitation and hygiene education on basic school pupils in the Sefwi Akontombra District. It was in an attempt to find out how pupils practice sanitation. According to WHO (2000), a health promoting school is “one that is constantly strengthening its capacity as a healthy setting for living, learning and working”. Improving the health of school children is thus a significant factor for achieving educational outcome. Though the results of this study could not be generalized, it was possible to draw the conclusion that in the ten selected schools studied in the Sefwi Akontombra District, School Sanitation and Hygiene Education (SSHE) did not have any significant impact on the pupils in the area since most of the pupils could not practice proper sanitation due to lack of appropriate sanitation facilities. If such conditions continue to prevail, the provision of total and holistic hygiene education for pupils in the study area and in Ghana as a whole, will not achieve the desired impact. This conclusion is particularly true for schools in rural and deprived school where provision of basic amenities are usually lacking. This could be a possible reason why many incurable illness or diseases prevail and even take alarming turns in some rural communities, most of which are attributed to the wrath of deities and gods.

Equally important is the fact that continuing general decline in school sanitation and hygiene education could result in poor school attendance and possible drop-out rate among female pupils. This is because most female pupils have to usually stay out of school for between 4 to 7 days each month during their menstruation due to unhygienic or lack of gender friendly toilet facilities. This situation puts the girl-child at a disadvantage position academically as she has to do extra work to catch up with her peers due to lost contact hours she experienced due to their natural disposition of being females. Many girls who are not able to manage this extra burden of learning harder and spending more time with their books in order to catch up with peers, do not often do well in school and even drop out of school.

Another conclusion that might be drawn in this study is teacher’s unwillingness to remain at post or even accept posting to rural or deprived communities where basic social amenities like toilet facilities are lacking. Many

teachers who teach in schools that lack toilet facilities often leave the school to look for a place of convenience just because they need to visit the toilet. This causes many of them to miss contact hours with pupils. Eventually, pupils are unable to acquire needed education which hampers the achievement of the Millennium Development Goal (ICF Macro, 2010; UNESCO, 2013; UNESCO, 2014). SSHE is undeniably a concerned area and a great emphasis on its implementation in schools should not be underestimated. In view of this, all stake holders have to do more in the area of provision of sanitation facilities, education and sensitization in order to achieve the millennium goals of sanitations and hygiene by 2015.

Based on the findings and conclusions drawn from the study, it is recommended that the government, School Management Committees (S M C), Parents Teachers Associations (P T A) school health committees and all stakeholders in education should ensure that proper and adequate toilet and urinal facilities which will enable pupils live under hygiene condition in schools are provided. Again, the government, in collaboration with the Ghana Education Service should organize workshops for school based health coordinators and also empower them with skills that will enable them handle issues related to hygiene and sanitation with confidence in basic schools. Also, the government should task the municipal and district assemblies as well as local governments to either encourage individual household in the community to acquire their own toilet facilities in their homes or provide toilet and urinal facilities for the community and also educate them to desist from using facilities of schools.

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